



NetAV I/O 2x2

Owner's Manual

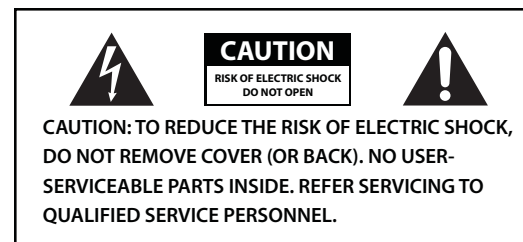
September 2013

www.stewartaudio.com

Important Safety Instructions

Before using your Stewart Audio Inc. Power Amplifier, please read this **Owner's Manual** carefully to ensure optimum trouble-free performance.

WARNING: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT EXPOSE THIS AMPLIFIER TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.



The lightning bolt within arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to person.



The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instruction in the literature accompanying the appliance.

Important Safety Instruction – Please Read Prior to Product Installation.

1. Installation should be performed by a trained and licensed professional to insure safe and lasting operation.
2. All of the safety and operating instructions should be read before the amplifier is installed or operated. Retain these instructions for future reference. All instructions should be followed; all warnings on the amplifier and in the operating instructions should be adhered to.

3. The amplifier should be situated so that its location and position does not interfere with its proper ventilation. For example, the amplifier must not be placed on a rug, bed, sofa or similar surface that impedes airflow across the chassis. Airflow through the ventilation openings should be unobstructed.
4. This amplifier should not be used near water, for example, near a bathtub, in a wet basement, near a swimming pool, etc. This amplifier is intended to be operated in a controlled indoor environment.
5. Do not place the amplifier near heat sources such as radiators, heat registers, stoves, or other appliances that produce heat.
6. The amplifier should only be connected to 120 VAC, 60 Hz power supply. Do not defeat the ground or polarization of the power plug.
7. Route power cord and other cables so that they are not likely to be walked on, tripped over or stressed. Pay particular attention to condition of cords and cables at plugs and at the point where they exit the amplifier. To prevent risk of fire or injury, damaged cords and cables should be replaced immediately.
8. Clean the amplifier with a clean, damp cloth. Do not use solvents or abrasive cleaners. Never pour any liquid on the amplifier.
9. When left unused for a long period of time, the power cord should be unplugged from the outlet.
10. Damaged Amplifiers requiring service should be repaired by a qualified service technician when:
 - a. The power cord or AC plug has been damaged.
 - b. Objects have fallen, or liquid has spilled into the unit.
 - c. The amplifier has been exposed to rain or other moisture.
 - d. The amplifier does not appear to operate normally or exhibits a marked change in performance.
 - e. The amplifier has been dropped or the enclosure damaged.
11. The user should not attempt to service the amplifier beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Table of Contents

Important Safety Instructions.....	2
Table of Contents.....	4
1 Welcome	5
1.1 Features.....	5
1.2 Using this Manual.....	5
2 Setup	6
2.1 Setup Precautions	6
2.2 Product Installation	6
2.3 Input Connections	11
2.4 Output Connections	12
3 Operation	13
3.1 Operation Precautions	13
3.2 Controls, Indicators, and Connectors	14
3.3 CobraNet	15
3.4 Dante	18
4 Troubleshooting	21
5 Technical Specifications	22
6 Warranty Information	23
6.1 Warranty Summary	23
6.2 Return Procedure	24
7 Accessories	26
8 Notes	27



1 Welcome



Congratulations on the purchase of your new Stewart Audio NetAV I/O 2x2. This unit has been designed and built to provide you with years of high-quality audio performance and trouble-free operation. If after reading this manual you should have any questions concerning amplifier installation and operation, please contact your Authorized Stewart Dealer, or you may contact us directly using the contact information provided on the back of this manual.

1.1 Features

Your Stewart Audio NetAV I/O 2x2 is the result of years of experience in the design and manufacture of quality amplifiers. As such it provides a combination of performance and operational benefits that simply cannot be found in conventional amplifiers.

- Sub Compact 1/4 rack package
- Two mic/line inputs with selectable pre-gain and phantom power
- Two analog outputs from Network
- Configurable via Control Center Software
- External inline power supply
- Made in the USA

1.2 Using this Manual

In order to obtain maximum performance from your NetAV I/O 2x2, please take time to read this brief owner's manual and carefully follow the guidelines for connection and operation.

This manual provides you with the information necessary to safely install and operate your new NetAV I/O 2x2 in the most common scenarios. If you find yourself requiring additional assistance, please feel free to contact your Authorized Dealer, or you may contact us directly using the contact information provided on the back of this manual.

2 Setup

2.1 Setup Precautions



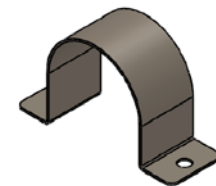
CAUTION: Before installing your amplifier, make sure that you have read the Important Safety Precautions at the beginning of this manual.

2.2 Product Installation

The NetAV I/O 2x2 incorporates a number of different mounting options in order to fit your installation needs.

2.2.1 Pole-Mounting

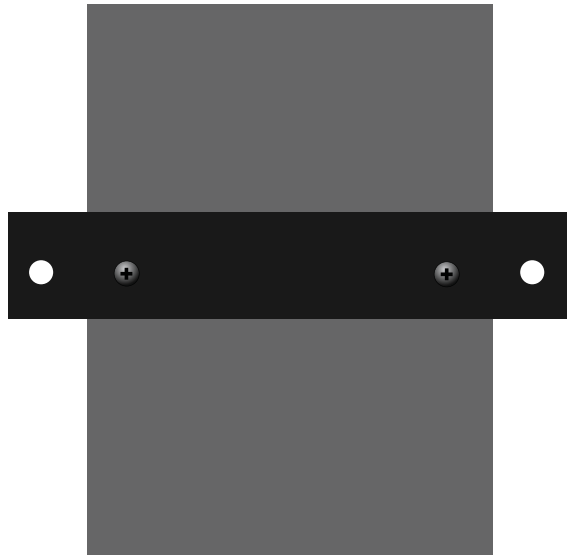
The NetAV I/O 2x2 has mount holes on the top of the unit which can be used with the AV-Pole bracket available from Stewart Audio.



Part Number: AV-Pole

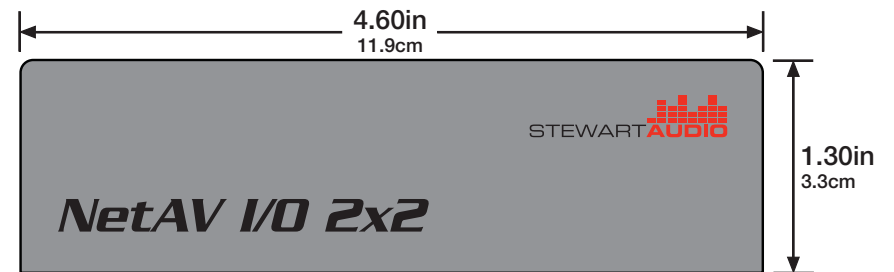
2.2.1 Universal-Mount Installation

The NetAV I/O 2x2 also has a universal bracket available which allows the unit to be mounted against a wall or under a table. Two screws are included in the kit which will affix the bracket to the top of the unit. Once this is done, two holes are available for mounting the unit where desired.

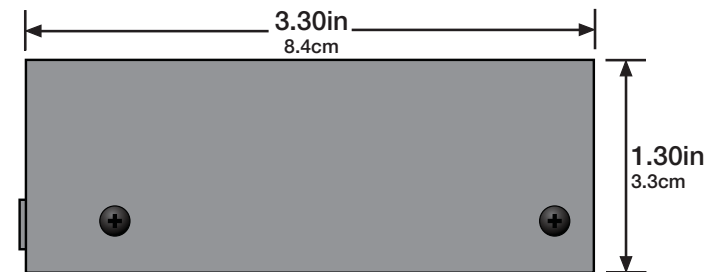


Part Number: AV-Bracket

2.2.3 Product Dimensions




Front



Side

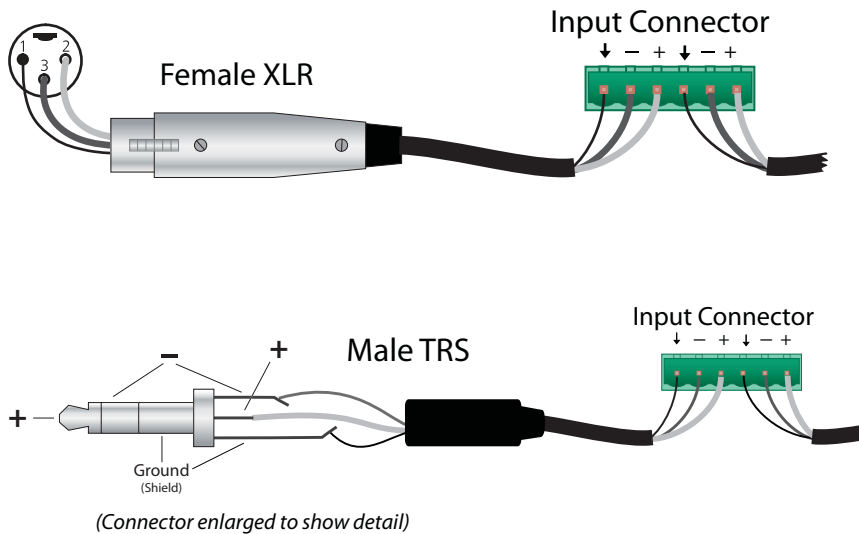
2.3 Input Connections

Your NetAV I/O 2x2 is provided with a 3-pin Phoenix connector for each input. This connector will accept both balanced or unbalanced connections, however some modifications must be made for an unbalanced connection. See the next two sections for instructions on connecting the NetAV I/O 2x2 to its input source.

 **CAUTION:** Use only the screws provided in mounting brackets to the amplifier. Do not over tighten.

2.3.1 Balanced Connections

When using a balanced input source and connector, you must ensure that the hot, cold, and ground pins of the connector are matched up to the +, -, and ground pins of the NetAV I/O 2x2's Phoenix connector respectively. Diagrams have been provided for standard XLR and TRS connectors. Please refer to the manual of your input source in case it does not follow the standard pin-out.

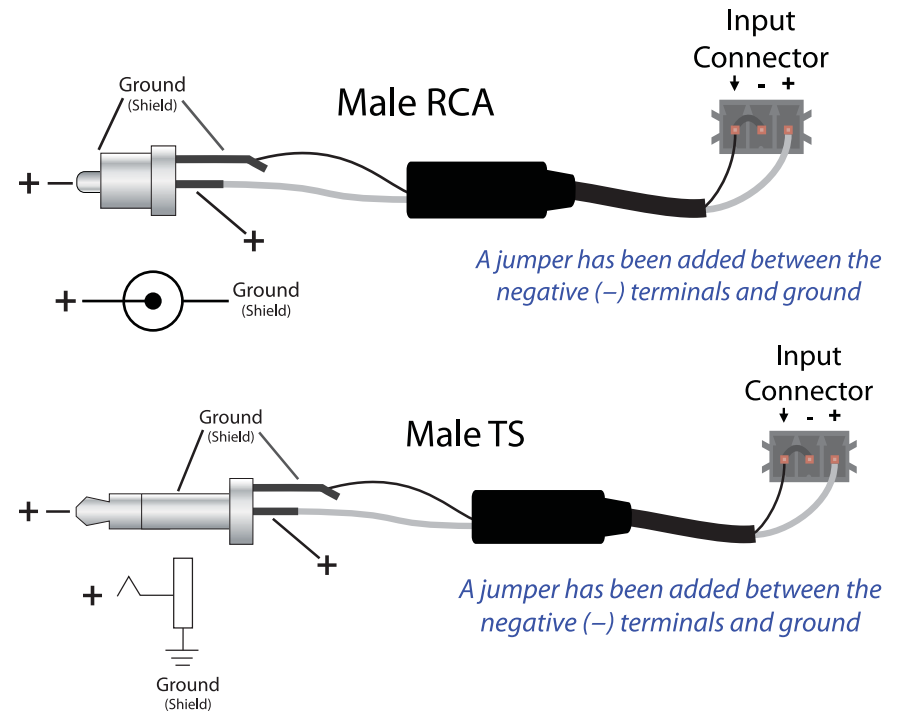


2.3.2 Unbalanced Input Connections

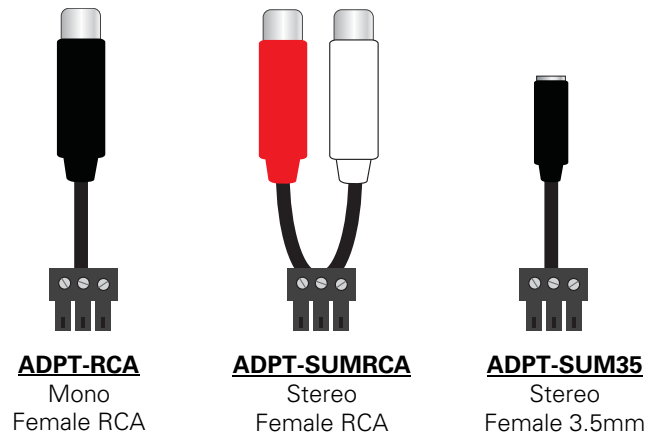
When using an unbalanced input source and connector, a jumper must be added between the negative (-) terminals and the ground terminals. Once this has been done, the unbalanced source can be connected to the positive (+) and ground terminals. Please refer to the manual of your input source in case it does not follow the standard pin-out. For your convenience, pre-wired connectors are available for purchase, see the next page for details.



NOTE: A jumper is required for connecting an unbalanced input.



Pre-wired unbalanced connectors are available for purchase from Stewart Audio. The summing adapters will properly sum a stereo source for use with the mono input on the rear of the NetAV I/O 2x2 without causing sound cancellation. Part numbers are found below the diagrams.



2.4 Output Connections

Your NetAV I/O 2x2 is provided with a 3-pin Phoenix connector for each output. This connector offers a balanced output to interface with the input of another device.

Connection methods for balanced and unbalanced outputs are identical as the methods for inputs as referenced in **section 2.3**.

3 Operation

3.1 Operating Precautions

1. Before use, your amplifier must be configured for proper operation, including input and output wiring hookup. Improper wiring can result in damage to equipment or potentially harm to the operator. Consult section 2 for setup instructions.
2. Tampering with the circuitry, or making unauthorized changes is not only dangerous but may also violate local regulations.
3. Use care when making connections between the amplifier and the input or output equipment. Using equipment that is not capable of handling the output wattage may lead to permanent damage.

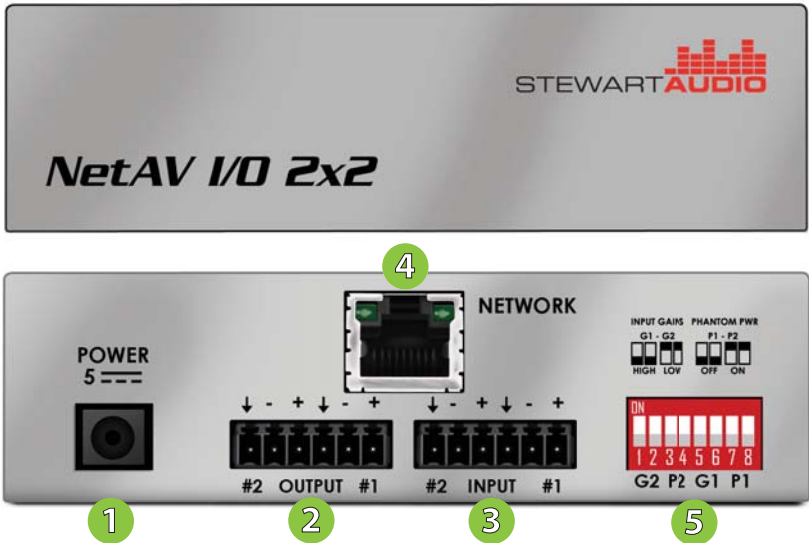


NOTE: Stewart Audio will not be held responsible for damage to your NetAV I/O 2x2 or connected equipment if the instructions in this manual are not followed.



NOTE: For additional operating precautions, please refer to "Important Safety Instructions" located on Page 2.

3.2 Controls, Indicators, and Connectors



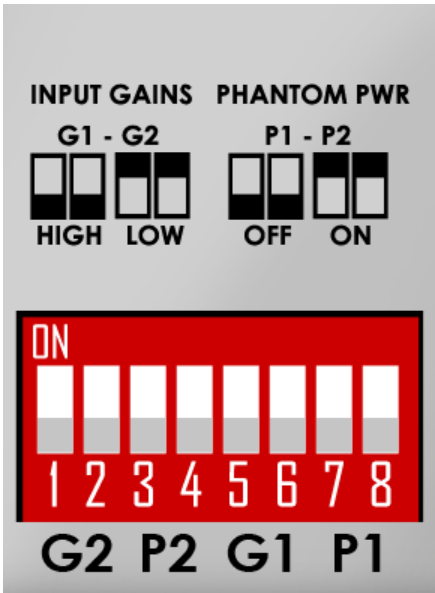
- 1 Power Connector
- 2 Output Connectors
- 3 Input Connectors
- 4 Network Connector
- 5 Gain & Phantom Power Switches

3.2.1 Controls

All of the NetAV I/O 2x2 controls are located on the rear of the unit. There is no power switch so the NetAV I/O 2x2 will turn on whenever power is supplied to the unit.

The rear panel contains one set of 8 DIP switches. These DIP switches will adjust the input gain level as well as enable or disable the phantom power on the designated channel.

DIP Switch # 1	Gain	Both On	Low Gain
DIP Switch # 2	Input 2	Both Off	High Gain
DIP Switch # 3	Phantom Pwr	Both On	Power On
DIP Switch # 4	Input 2	Both Off	Power Off
DIP Switch # 5	Gain	Both On	Low Gain
DIP Switch # 6	Input 1	Both Off	High Gain
DIP Switch # 7	Phantom Pwr	Both On	Power On
DIP Switch # 8	Input 1	Both Off	Power Off



3.3 CobraNet

3.3.1 CobraNet FAQ

Q: How do CobraNet devices communicate on the network? Do they receive an IP address?

A: CobraNet devices operate without the need for an IP address. Many configuration applications for CobraNet devices will assign an IP address for organizational purposes. However, CobraNet devices operate using data channels called “bundles”. In order to connect a transmitter and a receiver in a CobraNet network, both devices simply need to be set to the same bundle number. There is no need for a DHCP server (a router for example).

Q: How do I configure the bundles of the NetAV I/O 2x2?

A: Bundle settings should be configured using Cirrus Logic’s CobraNet Discovery Utility. Instructions for downloading and operation can be found in **section 3.3.2**.

Q: Why is the CobraNet Discovery Utility not detecting any devices?

A: First, ensure that your computer has an IP address. If you are operating without a DHCP server (ie in a switch-only network) then you will need to manually set an IP address in the Network Configuration section of Windows. Next, go to Tools > Options in the top menu and make sure the proper network device is selected in the top dropdown.

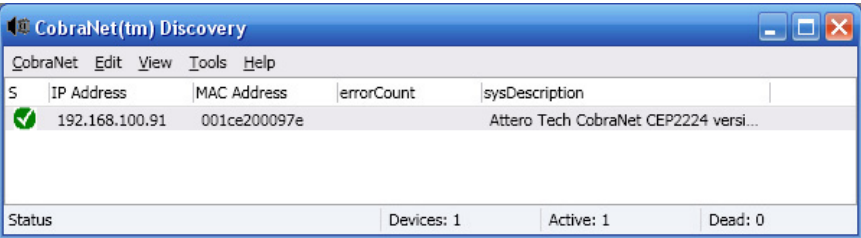
Q: Can the NetAV I/O 2x2 transmit the input channels to other CobraNet devices?

A: Yes, the NetAV I/O 2x2 is designed to transmit two channels and receive two channels over CobraNet.

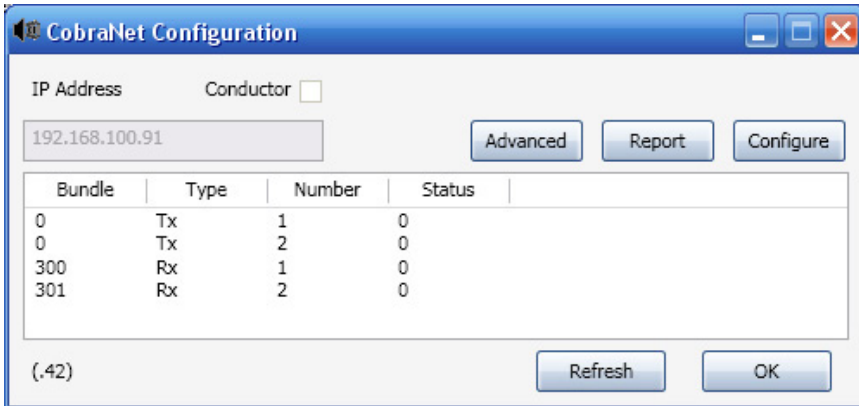
3.3.2 Using CobraNet Discovery Utility

The CobraNet Discovery utility can be downloaded from the Cirrus Logic website at: <http://www.cobranet.info/downloads/disco>

Once installed, it should be launched from a computer on the same network as the NetAV I/O 2x2. After the program launches it will search for CobraNet devices. The NetAV I/O 2x2 will appear as “Attero Tech CobraNet CEP2224”. If this is the first time you are setting up this device, or the device has been power cycled, the IP address will appear as 0.0.0.0. To set an IP address for easier recognition, right-click the device and select “Update IP Address”. To ensure visibility, assign it to the same subnet as the computer you are configuring it from.



3.3.2 Setting Up Bundles



The screenshot shows the 'CobraNet Configuration' window. At the top, there is a title bar with the text 'CobraNet Configuration'. Below the title bar, there is a section for 'IP Address' and 'Conductor'. The 'IP Address' field contains '192.168.100.91'. The 'Conductor' checkbox is unchecked. To the right of these fields are three buttons: 'Advanced', 'Report', and 'Configure'. Below this section is a table with four columns: 'Bundle', 'Type', 'Number', and 'Status'. The table contains four rows of data. At the bottom of the window, there is a status bar showing '(,42)' and two buttons: 'Refresh' and 'OK'.

Bundle	Type	Number	Status
0	Tx	1	0
0	Tx	2	0
300	Rx	1	0
301	Rx	2	0

To open up the bundle configuration window, double-click on the device listed in the screen above. You will see 2 Tx and 2 Rx bundles ready to configure.

Single-click on each of the Rx bundles (shown as 300 and 301 in the screen capture on the next page) to make the fields editable. From here you can enter a new bundle numbers.

Repeat the same procedure for the Tx bundles..

3.4 Dante

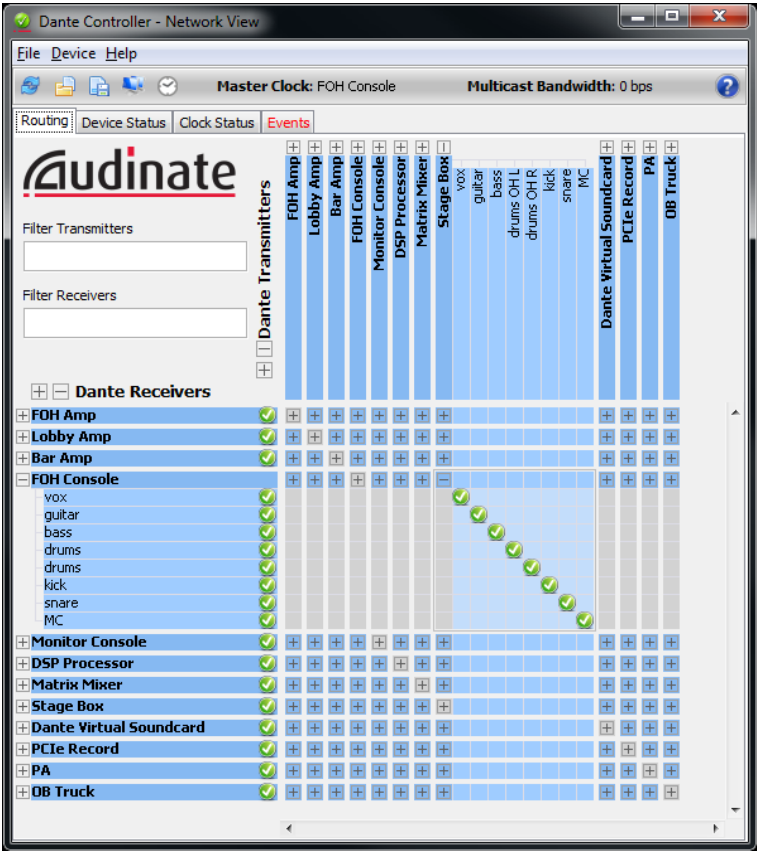
If you have selected the Dante version of the NetAV I/O, configuration is done using the Dante Controller software from Audinate.

Dante Controller Software can be found on Audinate's website at www.audinate.com.

From there you can select Dante Controller under the Products section. This will require registration for Audinate's portal and also includes access to the Dante Controller User Manual which should be read for complete configuration instructions.

3.4.1 Using Audinate's Dante Controller Software

Once Dante Controller has been installed following the instructions in the Dante Controller Software User Manual (found at www.audinate.com), launch the application to see the connection matrix.



Unlike CobraNet, Dante does not require IP configuration or bundle configuration. Instead, connections are made on the connection matrix shown above

All Stewart Audio products will ship from the factory as being named Ultimo-<MAC>. This can be renamed within the device configuration in the Dante Controller.

Transmitters are shown on the top of the matrix while Receivers are shown on the left-hand side. The NetAV I/O includes 2 transmitter and 2 receive channels. In order to make a connection, click on the matrix node between the appropriate transmitter and receiver. If a connection is successful, it will display a green checkmark.

3.4.2 Dante FAQ

Q: I am having problems installing or using the Dante Controller Software

A: Please refer to the official documentation available in the Audinate portal where you downloaded the Controller Software.

Q: I do not see the NetAV I/O showing up on the network?

A: All Stewart Audio products are tagged as Ultimo-<MAC_ADDRESS> from the factory. You can find the correct Ultimo device by choosing the correct MAC address from the list. You can rename this using the device configuration.

4 Troubleshooting

Problem: No output on one or both channels; Power indicator is lit.

Procedure: Check **section 3.3** to ensure that the CobraNet has been properly configured. Check **section 3.4** to ensure that Dante has been properly configured.

Problem: Input on NetAV I/O not sent to another network device or sound is distorted

Procedure: Check **section 3.3** to ensure that the CobraNet has been properly configured. Check **section 3.4** to ensure that Dante has been properly configured. Check **section 2.3** to ensure that the inputs are properly configured. If the input source requires pre-amplification or phantom power, please check **section 3.2.1** for instructions

5 Technical Specifications

Input Connectors	RJ45, Euro Block
Output Connectors	RJ45, Euro Block
Power Supply	External In-Line 5VDC
Cooling	Convection-Cooling
Construction	Aluminum Chassis
Mic / Line Input Type	Balanced & RF Filtered Euro Block
Phantom Power	+24V, selectable via DIP Switch
Mic / Line Gain	0dB, +28dB switch selectable
Input Impedance	20K balanced, 10K unbalanced, 1.2K when Phantom Power is on
Equivalent Input Noise	-110dBu
Maximum Input Levels	+6dBu @ 0dB Gain
Output Type	Balanced line level
Output Gain	0dB nominal
Output S/N	>100dB
Maximum Output Level	+6dBu
System THD	<.05% at any gain, input signal 3dB be- low maximum
Operating Temperatures	0°C - 40°C
Dimensions	
Height	1.30in (3.3cm)
Width	4.80in (12.2cm)
Depth	3.30in (8.4cm)
Weight	0.57lbs (0.26kg)

Stewart Audio reserves the right to change features and specifications without notice.

6 Warranty Information

6.1 Warranty Summary

All Stewart Audio amplifiers and accessories, unless excluded in this summary, are covered by a 3-year limited warranty on parts and labor from the date of purchase. In order to be eligible for warranty repairs, the amplifiers and accessories must have been purchased through an authorized Stewart Audio dealer and submitted by the original purchaser. This warranty is only valid in the country in which the amplifier was purchased.

6.1.1 Eligibility Requirements.

Stewart Audio warrants against all malfunctions which come as a result of component or manufacturer defect. The amplifier is also covered from all failures which arise during the warranty period (3 years from date of purchase) that are not a result of misuse. The following actions will void your warranty:

- The power cord or AC plug has been damaged through misuse.
- The amplifier has been exposed to moisture or extreme temperatures.
- The amplifier has been dropped, items have been dropped on the amplifier, or the enclosure has been damaged.
- The amplifier has been opened by the operator.
- The amplifier was improperly packaged when sending to the factory for repair, resulting in damage.
- Any of the precautions or instructions found in this manual were not followed.

Damages resulting to the amplifier which are not covered under this warranty can be factory-repaired at cost to the customer. Use the contact information below to initiate the repair process.

6.2 Return Procedure

This section includes the return procedures which must be followed in order to prevent processing delay or cost to the customer. Please read the entire section before contacting Stewart Audio for returns.

6.2.1 Return Authorization Number

All returns to the factory for service must be accompanied by a Return Authorization (RA) number. One can be obtained by contacting Stewart Audio at (209) 588-8111 or via e-mail at support@stewartaudio.com.

NOTE: Any defective products received without an RA number will be returned to sender at their expense.

If Stewart Audio is unable to contact the sender in 14 days, the merchandise will be considered scrap and may be disposed of.

6.2.2 Shipment Instructions

If Stewart Audio requests that you ship the defective product back to their service center, please refer to the guide below. To ensure prompt warranty service, be sure to follow all instructions.

1. Return Authorization (RA) is required for product being sent to the factory for service.
2. See packing instructions in **section 6.2.3**.
3. Ship the defective product using a method which provides for order tracking or order confirmation. The service center is located at the following address:

Stewart Audio
14397 Cuesta Court Suite D1
Sonora, CA 95370

4. Use a bold black marker and write the RA number on three sides of the box.
5. Record the RMA number for future reference. The RA number can be used to check the repair status.

6.2.3 Packaging Instructions

Should Stewart Audio request that you ship your product to their service center, these instructions must be followed in order to ensure safe delivery. If they are not followed, Stewart Audio assumes no responsibility for damaged goods and/or accessories that are sent with your unit.

6.2.3 Packaging Instructions (cont.)

1. Please write the RA number on three sides of the box. Include the Stewart Audio RA number inside the box and a brief description of the problem.
2. You will be advised during the RA process what accessories should be included with the amplifier (Power supplies, connectors, cords, etc.). This is dependent on the failure assessment.
3. When shipping your amplifier, it is important that it has adequate protection. We recommend you use the original packing material when returning the product for repair. If you do not have the original box, see number 4.
4. If you provide your own shipping pack, the minimum recommended requirements for materials are as follows:
 - a. 275 P.S.I. burst test, Double-Wall carton that allows for 2-inch solid Styrofoam on all six sides of unit or 3 inches of plastic bubble wrap on all six sides of unit.
 - b. Securely seal the package with an adequate carton sealing tape.
 - c. Do not use light boxes or "peanuts".

NOTE: Damage caused by poor packaging will not be covered under warranty.

6.2.4 Estimate Approval

An estimate for all non-warranty repairs will be provided to the customer once the unit has been shipped to the factory. The customer is responsible to approve this estimate within 7 days. If the repairs are not approved within 14 days, Stewart Audio reserves the right to consider the unit scrap and may discard it.

6.2.5 Payment of Non-Warranty Repairs

Payment for non-warranty repairs must be submitted to Stewart Audio before the product will be returned to the customer.

7 Accessories

The following accessories are available from Stewart Audio for your amplifier.

All part numbers shown are Stewart Audio Part Numbers.

Mounting Brackets

AV-POLE	Pole-mount bracket for AV Series amplifiers
AV-BRACKET	Universal mounting bracket for AV Series amplifiers

Connection Adapters

ADPT-RCA	Mono Female RCA to male Euroblock.
ADPT-SUMRCA	Stereo Female RCA to male Euroblock.
ADPT-SUM35	Stereo Female 3.5mm to male Euroblock

Wall Plates

WP-RVC-B	Wallplate with 10k potentiometer and knob for remote volume control (Black)
WP-RVC-A	Wallplate with 10k potentiometer and knob for remote volume control (Aluminum)

To purchase these accessories or to see the full Stewart Audio product lineup, visit us at:

www.stewartaudio.com

8 Notes



For Your Record

In the spaces provided below, record the model and serial number located at the rear of your amplifier.

[Retain this information for future reference.](#)

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Suite D1
Sonora, Ca. 95370

Phone: 209-588-8111
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